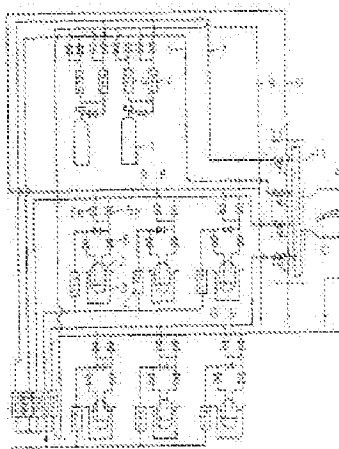


**MOCVD CRYSTAL GROWING APPARATUS****Publication number:** JP1130519 (A)**Publication date:** 1989-05-23**Inventor(s):** TAKAMI AKIHIRO**Applicant(s):** MITSUBISHI ELECTRIC CORP**Classification:**- **international:** **H01L21/205; H01L21/02;** (IPC1-7): H01L21/205- **European:****Application number:** JP19870289972 19871116**Priority number(s):** JP19870289972 19871116**Abstract of JP 1130519 (A)**

**PURPOSE:**To enable the control for adding a small quantity of dope for the successful growth of crystal with steep surfaces, by supplying supply gases having different concentrations and introducing selectively a plurality of supply gases to a reaction pipe by use of a manifold. **CONSTITUTION:**A radial manifold 13 introduces selectively group V material gas or group III organic metallic gas of a plurality of process systems 7 and 8 to a reaction pipe 6 by use of pneumatic cross valves 11. The systems 8 and 7 are used to grow crystal and at the same time provided with group V material gas and group III organic metallic gas respectively at the mixture ratio required for a crystal growing layer to flow into a vent line 9. And then the valves 11 are switched over from the line 9 to the pipe 6 upon changing a crystal growing layer. This enables the mixture ratio of each gas to be supplied to the tube 6 to change rapidly and in good mixture conditions. In addition, after switching over the valve 11 from the tube 6 to the line 9, each gas is supplied to the systems 7 and 8 respectively at the mixture ratio required for the following crystal growing layer to make a multilayer growth.



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